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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Wing-Cheong Gilbert Lai et al.

Title: SMALL GRAIN SIZE, CONFORMAL ALUMINUM INTERCONNECTS AND METHOD FOR THEIR FORMATION

Docket No.: 303.261US3

Serial No.: 09/782,498 ✓

Filed: February 13, 2001

Due Date: N/A

Examiner: Unknown

Group Art Unit: Unknown

Commissioner for Patents
Washington, D.C. 20231

We are transmitting herewith the following attached items (as indicated with an "X"):

- X A return postcard.
- X A Supplemental Preliminary Amendment (4 Pages).

If an additional fee is required due to changes to the claims, the fee has been calculated as follows:

CLAIMS AS AMENDED						
	(1) Claims Remaining After Amendment		(2) Highest Number Previously Paid For	(3) Present Extra	Rate	Fee
TOTAL CLAIMS	36	-	20	16	x 18 =	\$288.00
INDEPENDENT CLAIMS	8	-	4	4	x 80 =	\$320.00
[] MULTIPLE DEPENDENT CLAIMS PRESENTED						\$0.00
TOTAL						\$608.00

Please charge the required fee of \$608.00 to Deposit Account No. 19-0743.

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231, on this 4 day of June, 2001.

Name Tina Rugh

Signature Janal M. Kalis

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(GENERAL)

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PATENT

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SUPPLEMENTAL PRELIMINARY AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Before taking up the above-identified application for examination, please enter the following amendments.

IN THE CLAIMS

Please add the following new claims:

37. (New) An interconnect structure in an integrated circuit, comprising:
a first layer of titanium nitride;
an aluminum film;
a second layer of titanium nitride between the first layer of titanium nitride and the aluminum film wherein the aluminum film has a small grain size.
38. (New) An interconnect structure in an interconnect via defined by a bottom surface, a top surface, and sidewalls, comprising:
a first layer of titanium nitride formed on the sidewalls and the bottom surface defining the interconnect via;
a second layer of titanium nitride supported by the first layer of titanium nitride; and
an aluminum film having a small grain size, supported by the second layer of titanium nitride and extending throughout the interconnect via such that it is coplanar with the top surface defining the interconnect via.

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